App. F. IX—4

Previous References

19 ( )

File No. PWD 47 MGL

Serial Nos.

Later References

THE MYSORE GOVERNMENT SECRETARIAT

~~*Serial Nos.*~~

PUBLIC WORKS DEPARTMENT
(MAJOR IRRIGATION)
Mysore Government Secretariat,
Vidhana Soudha, Bangalore.

Part B for

SUBJECT

Soil Surveys for Irrigation Projects.

23/5/62 (Irrigation)
8/6/62

WD 09293—GPB—2,00,000—1-5-61

Notes pages.....1.....
Correspondences pages.....10.....
C/B Class.....B.....
For/Not for Section Note Book.....
To be destroyed after.....

Dy ~~Under~~ Secretary to Government.

10/10/62

Mysore Government Secretariat

40384/MI-62 File No. of 195 [App. F. III 2

PWD 247 MC 62

Serial No.

1) Letter no. H/61/FCC dated 11-5-62 from the ~~Chief Engineer, F(P&D)~~ Chairman Central water and Power Commission, GoI, New Delhi regarding soil surveys for Irrigation Projects.

2) Submitted for perusal. Copy of GoI's letter will be forwarded to the CE (PP) and to the Agriculture Dept and G.I. Section for needful action.

3) A draft is put up.

23/5/62

Issue

24.5.62

Despatched in No. P.W.D...M.I.MGT.62

Dated...2.6.62

May be readed 'B'

4/6/62

8/6/62

Note.—Contn. Sheet

No. 4/61/FCC
Government of India,
Central Water and Power Commission,
(Flood Control)

.....

New Delhi, Dated the 11 May, 1962.

To

The Chief Engineer, Irrigation,
Mysore State, Bangalore.

Subject:- Soil Surveys for Irrigation Projects

....

Sir,

As you are already aware, Soil survey of areas to be commanded by various Irrigation schemes are very necessary, in order to assess the suitability or otherwise of the land for development under various crops. A report of the broad based soil survey work is, therefore, required to be included in the project reports of new irrigation projects. It has been observed that in certain cases the Soil Surveys being carried out cover only limited aspects. It would, therefore, be useful if all requirements to be kept in view during these surveys are communicated to the officers concerned.

In carrying out soil surveys, field notes with respect to such features as geology, parent rock materials, soil colour, depth of soil crust, natural flora, surface and sub-surface drainage, watertable, etc. should be recorded on standard forms by field survey parties. The area to be surveyed should be divided into suitable grids, the size of each grid depending on the total area to be covered, the time allotted for completing the work and submission of the report, the general variation of the soil over the area and the like. Soil sampling should be done mainly by augers or from pits whichever is convenient. Soil Samples should be collected at each foot depth along the profile, except for the top foot where they are to be collected at each 15 cm (6 in.) depth, up to a total depth of 2.4 to 3 m (8 to 10 ft.) or to water-table or hard strata whichever is nearer from the surface. All changes of soil strata while sampling are also to be noted.

If, as the result of the broad-based soil survey, certain parts of the area are indicated to have high soluble salt content and/or pH signifying deteriorated land, such portions should generally be re-surveyed at a relatively more intensive rate to confirm and to pin-point areas which would have to be taken up for reclamation or which need special attention during post-project period.

As much information as possible should be collected during the field work regarding the water-table in the existing wells and the nature of fluctuations of sub-soil water during the year. For obtaining long range information on the manner of fluctuation of water-table observations may be taken on some of the wells scattered over the area once or twice during the month and for one or two years or more where practicable. The latter work should generally be allotted to local officers in the area who may supply the data as collected periodically. These should then be coordinated and plotted. In case sufficient wells do not exist to obtain the required information about the extent of fluctuation of sub-soil water, some pipes may be got installed for the purpose.

The soil samples are to be analysed for their total soluble salt content and pH. Representative samples are, in addition, to be tested for mechanical analysis and contents of exchangeable bases, calcium carbonate, manurial constituents, etc. The soils are to be categorised with respect to their salient physical and chemical characteristics for the soil survey report.

Some water samples from representative wells in the area should also be collected and analysed to afford necessary information with regard to the chemical constituents of sub-soil water and its general suitability for purposes of irrigation and, if necessary, to determine the fluctuation of its salt content when the water-table is at the maximum and minimum depths from the surface.

On the basis of prevailing cropping practices, some tentative recommendations are to be made of the cropping pattern which might be adopted when controlled irrigation supplies become available to the area. Such recommendations about cropping pattern will, however, be subject to confirmation by cropping experiments.

Similar soil surveys carried out at suitable intervals during the post-irrigation period will help to bring out the changes in the soil characteristics of the area as the result of irrigated cropping and will thus be useful for not only assessing the benefits to land but also indicating any tendency towards development of waterlogging and/or soil deterioration as the result of application of irrigation.

I shall be grateful if the various points contained ~~on~~ this letter are brought to the notice of officers of the irrigation, agriculture or other departments who are employed

MYSORE GOVT. SECRETARIAT
No. 4036
16 MAY 1962
PUBLIC WORKS (MAJOR IRRIGATION)

on the work of carrying out soil surveys of areas to commanded or to be commanded by Irrigation Projects in your State.

Yours faithfully,

7/5/62

(S. S. Kumar)
Chairman.

Copy forwarded to Secretary Irrigation Deptt. ~~Secretary Agriculture Deptt.~~ Mysore State. Bangalore

7/5/62

(S. S. Kumar)
Chairman.

Copy forwarded for information to:-

1. Secretary, Ministry of I&P, New Delhi.
2. Secretary, Ministry of Food and Agriculture, New Delhi.
3. Planning Commission (NR Division).

7/5/62

(S. S. Kumar)
Chairman.

Copy also forwarded for information to:-

1. Chief Engineer, FFI.
2. Director, S&CM Dte.
3. Director, H&S Dte.
4. Director, FCD Dte.
5. Director, Soil Conservation Dte.
6. Director, U.T.
7. Director, T.E.

R.K. Jain 8.5.62

(R. K. Jain)
Deputy Director, FCC
for Chief Engineer, F(P&D)

Sharma,
Copies - 100
ay ,1962.

Appendix F. G.—1]

SUBJECT Soil Surveys for Irrigation Projects.

Diary No. of letter replied to .....

Section

Mysore Government Secretariat.

File No. PWD 47 MGL 62

Serial No.

No.

To 1) The Chief Engineer (PD) M'lore
2) The Director of Agriculture in Mysore Bangalore

Date of issue Despatched in No. II W.D. 47 MGP 62

Dated 2-6-62

Signed by C.E.

I am directed to forward herewith a copy of ~~Govt's~~ letter no. H/61/FCC dated 11-5-62 received from the C.W.&P.C., Govt. of India regarding ~~the~~ the above subject for information and ~~needful action~~ guidance.

4/6/62

for Secy to Govt PWD

23/5/62

List of enclosures .....

Copy in ~~Copy~~ of Govt's letter

Copied by.....

is forwarded to

1) The G.I. Section and
2) The A+F Deptt for

Examined by .....

needful action

24.5.62

Dy. Secy to Govt

Bad

23/5/62

3 spare copies of GO's called

6

GOVERNMENT OF MYSORE

No PWD 67 MGL 62

MYSORE GOVERNMENT SECRETARIAT,
VIDHANA SOUDHA,

Dated, Bangalore, 23th May, *196* 2.
2-6-62

FROM

Secretary to the Government of Mysore,
Public Works and Electricity Department.

To

The Chief Engineer [redacted],
Irrigation Projects, Hunirabad.

The Director of Agriculture,
in Mysore, Bangalore.

Sir,

Sub: Soil Surveys for Irrigation Projects.

**

I am directed to forward herewith a copy of letter No.4/61/FCC dated 11.5.1962 received from the Central Water and Power Commission, Government of India regarding the above subject for information and guidance.

Yours faithfully,

Sd/-
(K.B.Murarapa)
Deputy Secretary to Govt.P.W.D.(Irrn)

Copy of the above with a copy of Government of India's letter is forwarded to:-

1) The General Irrigation Section AND

pto

B&S.

2) The Agriculture and Forest Department

for needful action.

Deputy Secretary to Govt.PWD(I)

Despatched in No. P.W.D. 4.7.MLP.62

Dated.....2.6.62

Copy of letter No.4/61/FCC, dated 11 May 1962 from the Central Water and Power Commission,(Flood Control), Government of India, New Delhi to the Chief Engineer, Irrigation, Mysore State, Bangalore and copy endorsed to this office-

=.=.=

Soil Surveys for Irrigation Projects

As you are already aware, Soil survey of areas to be commanded by various Irrigation Schemes are very necessary, in order to assess the suitability or otherwise of the land for development under various crops. A report of the broad based Soil Survey works is, therefore, required to be included in the project reports of new Irrigation projects. It has been observed that in certain cases the Soil Surveys being carried out cover only limited aspects. It would, therefore, be useful if all requirements to be kept in view during these surveys are communicated to the officers concerned.

In carrying out soil surveys, field notes with respect to such features as geology, parent rock materials, soil colour, depth of soil crust natural flora, surface and Sub-Surface drainage watertable, etc., should be recorded on standard forms by field survey parties. The area to be surveyed should be divided into suitable grids, the size of each grid depending on the total area to be covered, the time allotted for completing the work and submission of the report, the general variation of the soil over the area and the like. Soil sampling should be done mainly by augers or from pits whichever is convenient. Soil Samples should be collected at each foot depth along the profile except for the top foot where they are to be collected at each 15 cm (6 in). depth, up to a total depth of 2-4 to 3 m (3 to 10 ft) or to water-table

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I shall be grateful if the various points contained in this letter are brought to the notice of officers of the irrigation, agriculture or other departments who are employed on the work of carrying out soil surveys of areas to commanded or to be commanded by Irrigation Projects in your State.

=====